



US007361899B2

(12) **United States Patent**
Iida

(10) **Patent No.:** **US 7,361,899 B2**
(45) **Date of Patent:** **Apr. 22, 2008**

(54) **INFRARED SENSOR, INFRARED CAMERA, METHOD OF DRIVING INFRARED SENSOR, AND METHOD OF DRIVING INFRARED CAMERA**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 26 days.

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(21) Appl. No.: **11/532,771**

(22) Filed: **Sep. 18, 2006**

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(65) **Prior Publication Data**

US 2007/0145274 A1 Jun. 28, 2007

(30) **Foreign Application Priority Data**

Dec. 27, 2005 (JP) 2005-375331

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(51) **Int. Cl.**

G01J 5/20 (2006.01)
H01L 27/14 (2006.01)
H01L 31/00 (2006.01)

(57) **ABSTRACT**

(52) **U.S. Cl.** **250/336.4; 250/370.01**

(58) **Field of Classification Search** 250/338.1, 250/338.2, 338.3, 338.4, 338.5, 339.01, 339.02, 250/339.03, 339.04, 339.05, 339.06, 339.07, 250/339.08, 339.09, 339.1, 339.11, 339.12, 250/339.13, 339.14, 339.15, 341.1, 341.2, 250/341.3, 341.5, 341.6, 341.7, 341.8, 342, 250/343, 344, 345, 346, 347, 348, 349, 350, 250/351, 352, 353, 354.1, 341.4

An infrared sensor includes an imaging area including infrared detection pixels; row selection lines; a signal line; a row selection circuit generating a column voltage in the signal line; a column amplifier including a first amplifying transistor which generates an amplification voltage obtained by amplifying the column voltage and a first clamp circuit which holds threshold voltage information of the first amplifying transistor in its gate; a removing circuit including a second amplifying transistor and a second clamp circuit which holds threshold voltage information of the second amplifying transistor in its gate, the removing circuit being connected to the column amplifier to remove a bias component from the amplification voltage; and a reading circuit reading an output voltage from the column amplifier, the output voltage is obtained by excluding at least the bias component from the amplification voltage.

See application file for complete search history.

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22 Claims, 16 Drawing Sheets

